



UM30

The universal application solver

ULTRASONIC SENSORS

SICK
Sensor Intelligence.



Technical data overview

Measuring range	Operating range	30 mm ... 6,000 mm (depending on type)
	Limiting range	350 mm ... 8,000 mm (depending on type)
Resolution		≥ 0.18 mm
Repeatability		± 0.15 %
Response time		32 ms ... 240 ms 32 ms ... 240 ms ¹⁾
Output time		8 ms ... 60 ms (depending on type)
Switching frequency		25 Hz 12 Hz 8 Hz 4 Hz 3 Hz
Analog output		4 mA ... 20 mA, ≤ 500 Ω ²⁾ 0 V ... 10 V, ≥ 100,000 Ω
Digital output	Type	PNP / NPN / push-pull: PNP/NPN (depending on type)
-		
IO-Link		✓, V1.1
Enclosure rating		IP65 / IP67
Sending axis		Straight

¹⁾ Subsequent smoothing of the analog output, depending on the application, may increase the response time by up to 200 %.

²⁾ For 4 mA ... 20 mA and $V_s \leq 20$ V max. load ≤ 100 Ω.

Product description

The sensors of the UM30 product family impress with high flexibility. Various sensing ranges of up to 8,000 mm as well as countless configuration options leave no applications unsolved. The high measurement accuracy provided by internal temperature compensation, along with color-independent object detection, immunity to contamination, and a wide operating temperature range up to 70 °C all ensure reliable operation, even under the most challenging conditions.

At a glance

- Reliable measurement, regardless of material color, transparency, gloss, or ambient light
- Sensing range up to 8,000 mm
- Display enables fast and flexible sensor adjustment
- Immune to dirt, dust, humidity, and fog
- Versatile interfaces including IO-Link available
- Adjustable sensitivity

Your benefits

- Easy system integration due to compact design
- Flexible adaptation to application requirements due to numerous configuration options and adjustable sensitivity
- Reliable measurement results since synchronization and multiplex mode prevents mutual interference of sensors
- Inexpensive area monitoring possible due to sensor synchronization
- Offline sensor configuration on display enables pre-configuration and saves time when commissioning the system
- Integrated temperature compensation for high measurement accuracy
- ObSB mode enables detection of any object between the sensor and a taught-in background

Fields of application

- Level regulation for liquids and bulk materials
- Detection, measurement and positioning of dark, shiny, and transparent materials
- Diameter check for metal, paper, and plastic coils
- Continuous detection of fabrics and wire grids
- Collision avoidance
- Outdoor applications

Ordering information

Other models and accessories → www.sick.com/UM30

- **Operating range, limiting range:** 30 mm ... 250 mm, 350 mm
- **Connection type:** male connector, M12, 5-pin
- **Response time:** 32 ms
- **Weight:** 150 g
- **Sending axis:** straight

Digital output	Communication interface	Communication Interface detail	Type	Part no.
1 x NPN	-	-	UM30-211115	6037669
1 x PNP	-	-	UM30-211111	6037660
1 x push-pull: PNP/NPN	IO-Link	V1.1	UM30-21111B	6068447
2 x NPN	-	-	UM30-211114	6037674
2 x PNP	-	-	UM30-211112	6037664

- **Operating range, limiting range:** 30 mm ... 250 mm, 350 mm
- **Connection type:** male connector, M12, 5-pin
- **Response time:** 32 ms (Subsequent smoothing of the analog output, depending on the application, may increase the response time by up to 200 %.)
- **Type of analog output:** Current output / voltage output
- **Communication interface:** -
- **Weight:** 150 g
- **Sending axis:** straight

Digital output	Type	Part no.
-	UM30-211113	6036916
1 x PNP	UM30-211118	6036921

- **Operating range, limiting range:** 65 mm ... 350 mm, 600 mm
- **Connection type:** male connector, M12, 5-pin
- **Response time:** 64 ms
- **Weight:** 150 g
- **Sending axis:** straight

Digital output	Communication interface	Communication Interface detail	Type	Part no.
1 x NPN	-	-	UM30-212115	6037670
1 x PNP	-	-	UM30-212111	6037661
1 x push-pull: PNP/NPN	IO-Link	V1.1	UM30-21211B	6068448
2 x NPN	-	-	UM30-212114	6037675
2 x PNP	-	-	UM30-212112	6037665

- **Operating range, limiting range:** 65 mm ... 350 mm, 600 mm
- **Connection type:** male connector, M12, 5-pin
- **Response time:** 64 ms (Subsequent smoothing of the analog output, depending on the application, may increase the response time by up to 200 %.)
- **Type of analog output:** Current output / voltage output
- **Communication interface:** -
- **Weight:** 150 g
- **Sending axis:** straight

Digital output	Type	Part no.
-	UM30-212113	6036917
1 x PNP	UM30-212118	6036922

- **Operating range, limiting range:** 200 mm ... 1,300 mm, 2,000 mm
- **Connection type:** male connector, M12, 5-pin
- **Response time:** 92 ms
- **Weight:** 150 g
- **Sending axis:** straight

Digital output	Communication interface	Communication Interface detail	Type	Part no.
1 x NPN	-	-	UM30-213115	6037671
1 x PNP	-	-	UM30-213111	6037537
1 x push-pull: PNP/NPN	IO-Link	V1.1	UM30-21311B	6068449
2 x NPN	-	-	UM30-213114	6037676
2 x PNP	-	-	UM30-213112	6037666

- **Operating range, limiting range:** 200 mm ... 1,300 mm, 2,000 mm
- **Connection type:** male connector, M12, 5-pin
- **Response time:** 92 ms (Subsequent smoothing of the analog output, depending on the application, may increase the response time by up to 200 %.)
- **Type of analog output:** Current output / voltage output
- **Communication interface:** -
- **Weight:** 150 g
- **Sending axis:** straight

Digital output	Type	Part no.
-	UM30-213113	6036918
1 x PNP	UM30-213118	6036923

- **Operating range, limiting range:** 350 mm ... 3,400 mm, 5,000 mm
- **Connection type:** male connector, M12, 5-pin
- **Response time:** 180 ms
- **Weight:** 210 g
- **Sending axis:** straight

Digital output	Communication interface	Communication Interface detail	Type	Part no.
1 x NPN	-	-	UM30-214115	6037672
1 x PNP	-	-	UM30-214111	6037662
1 x push-pull: PNP/NPN	IO-Link	V1.1	UM30-21411B	6068450
2 x NPN	-	-	UM30-214114	6037677

Digital output	Communication interface	Communication Interface detail	Type	Part no.
2 x PNP	-	-	UM30-214112	6037667

- **Operating range, limiting range:** 350 mm ... 3,400 mm, 5,000 mm
- **Connection type:** male connector, M12, 5-pin
- **Response time:** 180 ms (Subsequent smoothing of the analog output, depending on the application, may increase the response time by up to 200 %.)
- **Type of analog output:** Current output / voltage output
- **Communication interface:** -
- **Weight:** 210 g
- **Sending axis:** straight

Digital output	Type	Part no.
-	UM30-214113	6036919
1 x PNP	UM30-214118	6036924

- **Operating range, limiting range:** 600 mm ... 6,000 mm, 8,000 mm
- **Connection type:** male connector, M12, 5-pin
- **Response time:** 240 ms
- **Weight:** 270 g
- **Sending axis:** straight

Digital output	Communication interface	Communication Interface detail	Type	Part no.
1 x NPN	-	-	UM30-215115	6037673
1 x PNP	-	-	UM30-215111	6037663
1 x push-pull: PNP/NPN	IO-Link	V1.1	UM30-21511B	6068451
2 x NPN	-	-	UM30-215114	6037678
2 x PNP	-	-	UM30-215112	6037668

- **Operating range, limiting range:** 600 mm ... 6,000 mm, 8,000 mm
- **Connection type:** male connector, M12, 5-pin
- **Response time:** 240 ms (Subsequent smoothing of the analog output, depending on the application, may increase the response time by up to 200 %.)
- **Type of analog output:** Current output / voltage output
- **Communication interface:** -
- **Weight:** 270 g
- **Sending axis:** straight

Digital output	Type	Part no.
-	UM30-215113	6036920
1 x PNP	UM30-215118	6036925

SICK AT A GLANCE

SICK is one of the leading manufacturers of intelligent sensors and sensor solutions for industrial applications. A unique range of products and services creates the perfect basis for controlling processes securely and efficiently, protecting individuals from accidents and preventing damage to the environment.

We have extensive experience in a wide range of industries and understand their processes and requirements. With intelligent sensors, we can deliver exactly what our customers need. In application centers in Europe, Asia and North America, system solutions are tested and optimized in accordance with customer specifications. All this makes us a reliable supplier and development partner.

Comprehensive services complete our offering: SICK LifeTime Services provide support throughout the machine life cycle and ensure safety and productivity.

For us, that is “Sensor Intelligence.”

WORLDWIDE PRESENCE:

Contacts and other locations –www.sick.com